

## [ABSTRACT]

A printing system making use of a lithographic printing plate has been disclosed, the system comprising the steps of image-wise exposing to infrared light a heat sensitive imaging element, the element being optionally present on the printing press before starting the image-wise exposing step to infrared light, wherein the element comprises, on a lithographic base with a hydrophilic surface thereupon, an image-forming layer including hydrophobic thermoplastic polymer particles and a hydrophilic polymer binder, and, optionally, an infrared absorbing compound, wherein the hydrophobic polymer particles contain more than 0.1 wt % of nitrogen and have an average particle size diameter in the range from 0.015 to 0.150  $\mu\text{m}$ ; developing the image-wise exposed imaging element by mounting it on a print cylinder of a printing press and applying an aqueous dampening liquid ink to the imaging element while rotating the print cylinder; providing a printing run length of the press, increased with a factor of at least 5, when reducing the average particle size diameter of the hydrophobic polymer particles in an amount of more than 25 %.